

Tuesday  
1/13/98DUXBURY HISTORY FILE  
REFERENCE

# Guardian of the seas

■ A Duxbury company will monitor the waters around the new Massachusetts Bay sewage outfall tunnel.

By Eric Niller  
The Patriot Ledger

**A** little-known South Shore oceanographic center in Duxbury is emerging as a major player in the environmental services industry.

Last month, the 70-employee Battelle Ocean Sciences center was awarded a four-year, \$7.7 million contract to monitor and test the waters around the new sewage outfall tunnel being built by the Massachusetts Water Resources Authority as part of the Boston Harbor cleanup.

"It's an extremely significant contract and getting it back is very important for our business here," said Carlton Hunt, a marine chemist and program manager at Battelle.

Battelle's marine chemists, biologists and engineers will check the health of the ecosystem around Massachusetts Bay before and after the outfall begins discharging treated sewage into Massachusetts Bay later this year.

When it's turned on, more than 17.3 million cubic meters per second will flow out of the 9.5-mile outfall tunnel, which begins at Deer Island in Boston Harbor. That's equivalent to the combined flows of the Charles and Neponset rivers.

To complete its studies, Battelle is refitting a lobster boat as a research vessel for scientific missions to the Stellwagen Bank and Massachusetts Bay. The boat was auctioned off as part of a federal buyback program for fishermen wanting to get out of the industry.

About half the work for the MWRA contract will be done at the

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Carl Albro, left, a research leader with Battelle Ocean Sciences center, is with Ted Nichols, who is fitting their research boat for testing of MWRA outflow pipes and ocean monitoring procedures.

# Duxbury company to monitor outfall

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Battelle's Duxbury offices. The rest will be contracted out to professors at the University of Massachusetts at Boston, Boston University, the University of Massachusetts at Dartmouth, the Woods Hole Oceanographic Institution and the Marine Biological Laboratory at Woods Hole.

Business has doubled over the past year and Battelle is hiring 20 new college graduates, computer specialists and senior scientists this year. That's on top of 20 new hires in 1997, said Joan Sundstrom, human resources manager at Battelle.

In addition to the MWRA contract, Battelle is setting up an oceanographic lab on the Italian island of Sardinia to monitor the health of the Mediterranean Sea.

The Environmental Protection Agency sends soil samples from the bottom of New York Harbor and New Jersey to Battelle to determine its toxicity, and the company has a long-term contract with the Army Corps of Engineers to test dredge spoils throughout New England.

Battelle actually began working with the MWRA in the late 1980s when the outfall was in the planning stages. From 1991 to 1994, it held the monitoring contract until losing it to another firm, Ensor.

The re-awarding of the outfall monitoring contract means the company can continue to expand and explore new marine technologies.

Carl Albro, the firm's research engineer, designed a special circular wave tank last year that tests how oil and petroleum products break down under certain environmental conditions. Fans and pumps create winds up to 30 mph and waves up to a foot high. Lamps and heaters around the 1,100-gallon tank simulate sunlight.

The idea, Albro said, is to study how quickly different oil mixtures break down in the open ocean or waterway. The only other research tank like it is in Norway.

"We want to simulate real-world weathering of the oil," he said.

Coast Guard officials and oil companies have hired Battelle to conduct tests at the new tank.

In recent years, Battelle's Duxbury lab also developed a way to "fingerprint" oil spills by the molecular composition of the petroleum products. In this way, spills can be tracked and matched precisely to their source, an important step in determining liability for the cleanup.

The Duxbury laboratory is a division of Battelle Institute of Columbus, Ohio, a technology company with more than 8,000 employees worldwide.

The Duxbury location was once the summer residence of William Clapp, a Harvard biologist and expert in marine worms.

Clapp sold the lab to Battelle in the 1960s. Its facilities were expanded significantly in the early 1980s when Battelle was hired by the government to conduct studies of the Georges Bank ecosystem and the possible effects of oil drilling.